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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,400

12/12/2005

Haruyo Fukui

4929/PCT

2788

21553 7590 10/05/2007  
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EXAMINER

TURNER, ARCHENE A

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

10/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/560,400	<b>Applicant(s)</b> FUKUI ET AL.	
	<b>Examiner</b> Archene Turner	<b>Art Unit</b> 1775	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/05</u> | 6) <input type="checkbox"/> Other: _____  |

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 includes a nitride, carbonitride, an oxynitride and a carboxynitride of S, which is not provided for in claim 1.

3. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "WC-based" renders the claim indefinite.

4. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely

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exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 9 recites the broad recitation types of tools, and the claim also recites particular inserts which is the narrower statement of the range/limitation.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishikawa (7,166,155) or Yamamoto et al (6,824,601).

Ishikawa or Yamamoto et al discloses the claimed coating with the claimed composition on the claimed substrate within the claimed thickness made by the claimed method used for the claimed tools. Since Ishikawa or Yamamoto et al discloses the claimed coating the claimed hardness and  $(h_{max} - h_f)/h_{max}$  values are considered inherent.

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7. Claims 1, 4-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamamoto et al (6,767,658) or Ishikawa et al (6,585,122).

Yamamoto et al or Ishikawa et al discloses the claimed coating with the claimed composition on the claimed substrate within the claimed thickness made by the claimed method used for the claimed tools. Since Yamamoto et al or Ishikawa et al discloses the claimed coating the claimed hardness and  $(h_{\max} - h_f)/h_{\max}$  values are considered inherent.

8. Claims 1, 4-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hitachi Tools (JP 2002-337007).

Hitachi Tools discloses the claimed coating with the claimed composition on the claimed substrate within the claimed thickness made by the claimed method used for the claimed tools. Since Hitachi Tools discloses the claimed coating the claimed hardness and  $(h_{\max} - h_f)/h_{\max}$  values are considered inherent.

9. Claims 1, 4, 6-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hitachi Tools (JP 2000-326108).

Hitachi Tools discloses the claimed coating with the claimed composition on the claimed substrate within the claimed thickness made by the claimed method used for the claimed tools. Since Hitachi Tools discloses the claimed coating the claimed hardness and  $(h_{\max} - h_f)/h_{\max}$  values are considered inherent.

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10. Claims 1-4,6-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hitachi Tools (JP 11-131216 or JP 09-295204) or Kobe Steel (JP 08-120445) or Tanka et al (5,580,653).

Hitachi Tools or Kobe Steel or Tanaka et al discloses the claimed coating with the claimed composition on the claimed substrate within the claimed thickness made by the claimed method used for the claimed tools. Since Hitachi Tools or Kobe Steel or Tanaka et al disclose the claimed coating the claimed hardness and  $(h_{max} - h_f)/h_{max}$  values are considered inherent.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Archene Turner whose new telephone number is (571) 272-1545. The examiner can normally be reached on Monday, Wednesday through Friday from 10:30 am. to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Please remember to include on the fax, the art unit 1775, serial number and Examiner's name.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, consisting of a large, stylized 'A' followed by a long, sweeping horizontal line that curves slightly upwards at the end.

**A. A. Turner**  
**Primary Examiner**  
**Group 1700**

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